FEATURED ORAL PRESENTATION

824FO Featured Oral Session...Interventions and Acute Myocardial Infarction

Monday, March 18, 2002, 2:00 p.m.-3:30 p.m.
Georgia World Congress Center, Hall D2

2:15 p.m.

824FO-2 Primary Stenting Optimizes the Outcome of Women With Acute Myocardial Infarction: Results From the CADILLAC Trial

Alexandra J. Lansky, Cindy Grines, Kartik Desai, Ecatarina Cristea, Maria Corral, David Cox, Susan Gedney, John J. Griffin, Thomas Stuckey, Eulogia Garcia, Barry D. Rutherford, Gregg W. Stone, *Cardiovascular Research Foundation, New York, New York, Lenox Hill Heart and Vascular Institute, New York, New York.*

Background: In the PAMI trial, use of thrombolytic therapy was a predictor of mortality for women, whereas primary PTCA was associated with significant improvements in short and long-term outcome. However, the optimal revascularization strategy for women with AMI remains unclear. Methods: We evaluated gender-based outcomes from the CADILLAC trial, which randomized 2080 pts (1520 men and 562 women) with AMI presenting w/in 12 hours of symptom onset (excl. cardiogenic shock) to primary PTCA, PTCA+ abciximab, stent alone, or stent+abciximab. Results: Women were older (65 vs 58yrs, p<0.001), had more hypertension (45% vs 29%, p<0.001), diabetes (24% vs 14%, p<0.001), hyperlipidemia (43% vs 36%, p1 in 15% vs 10%, p<0.001). By quantitative angiography women had smaller vessel sizes (2.84mm vs 3.02mm, p<0.001). Stents were used in 57% and abciximab in 53% of cases. The final % diameter stenosis (DS) was similar (18%) in men and women, as was the %DS at follow-up (41% vs 39%, p=0.50). Clinical outcome are listed in table.Among women, the use of stents was associated with the lowest MACE at 6months follow-up((OR 0.49) 95%CI [0.32, 0.75], p=0.001).
Conclusion: Women with acute myocardial infarction undergoing primary intervention have higher 30 day and 6 month MACE compared to men, due in part to the higher frequency of baseline risk factors. Primary stenting in women as in men is the best revascularization strategy for AMI.

	Men	Women	P Value
30 day MACE, %	4.6%	9.4%	<0.001
30 day Death, %	1.2%	4.6%	<0.001
30 day TVR, %	2.3%	4.5%	0.104
6 month MACE,%	11.8%	20.5%	<0.001
6 month Death, %	2.4%	6.4%	<0.001
6 month TVR, %	8.8%	13.5%	<0.001
Restenosis (%)	27.6%	30.2%	0.544

2:30 p.m.

824FO-3 Guide Wire Inducable Reopening of the Infarct Related Artery in Patients With Acute ST-Segment Elevation Myocardial Infarction Undergoing Primary Percutaneous Intervention: A Marker of Low Mortality

Volkhard Kurowski, Dirk P. Killermann, Deepak Jain, Uwe K. Wiegand, Evangelos Giannitsis, Ralph Toelg, Franz Hartmann, Hugo A. Katus, Gert Richardt, *Medical University of Luebeck, Luebeck, Germany.*

Background: During primary PCI in AMI the restitution of coronary blood flow may be already observed after passage of the culprit lesion with the guide wire and before definite angioplasty/stenting. We sought to determine variables associated with such a wire inducable reopening (WIRO) of the infarct related artery (IRA) and its prognostic implication.
Methods: 328 consecutive patients (pts.) with acute ST-segment elevation MI undergoing primary PCI within 12 hrs after onset of symptoms were enrolled and followed for up to 1099 (mean 480) days. WIRO was defined as TIMI grade ≥2 flow visualized in the first angiogram after guide wire passage.
Results: At time of PCI, 90 pts. (27.4%, group I) presented with a spontaneously reopened IRA, 56 pts. (17.1%, group II) revealed WIRO, in 165 pat. (50.3%, group III) successful recanalisation (TIMI grade ≥2 flow) was achieved by angioplasty/stenting, and in 17 pat. (5.2%, group IV) PCI was ultimately not successful. Cumulative cardiac mortality was significantly (p<0.001) different between group I (6.7%), II (3.6%), III (13.9%), and IV (70.6%). The comparison between pts. with primarily occluded IRA and WIRO and those in whom a patent IRA was not observed before balloon dilatation and/or stenting (group II vs III) revealed significant (<0.05) differences with respect to a positive (>0.1 ng/ml) troponin(TnT) test on admission (29 vs 53%), anterior MI (23 vs 51%) and age (59 vs 65 yrs), but not with respect to time from onset of symptoms to mechanical reperfusion (4.2 vs 5.0 hrs). Glycoprotein IIb/IIIa antagonist treatment was less often initiated in group II (21 vs 43% in group III, p<0.01).
Conclusion: Pts. with AMI and WIRO during primary PCI have a pronounced low mortality rate possibly due to a smaller thrombus load and/or less affected microvascular flow as indicated by a negative TnT test on admission. Thus, WIRO serves as a prognostic marker which may help to establish a strategy for adjunctive therapy which is both, adequate and cost-effective.

2:45 p.m.

824FO-4 Can Risk Stratification Using TIMI Score of Unstable Angina/Non-ST Elevation Myocardial Infarction Predict Short-Term Outcome After Percutaneous Coronary Intervention?

Annapoorna S. Kini, Cristina A. Mitre, Paul Lee, Mazullah Kamran, Michael Kim, Mary E. Duffy, Jonathan D. Marmur, Samin K. Sharma, *The Mount Sinai Medical Center, New York, New York.*

Background: Risk stratification using TIMI score in unstable angina (UA) and non-ST elevation myocardial infarction (NSTEMI) for optimal medical management has been established using 7 variables: age ≥65 yrs, significant coronary artery disease (CAD), ST-segment changes, rest pain within 24 hrs, aspirin use within 7 days, ≥3 CAD risk factors, positive cardiac markers. Application of TIMI risk score to predict in-hospital and short-term outcome in UA/NSTEMI patients undergoing percutaneous coronary intervention (PCI) has not been studied.
Methods: We analyzed 2501 consecutive UA/NSTEMI patients undergoing PCI from July 1999 to May 2001 for in-hospital and 30-day outcome based on TIMI score: low-risk 0-2, intermediate 3-4, and high-risk 5-7.
Results: Significant clinical and procedural variables are:

Variables	Low-risk n=964	Intermediate-risk n=1311	High-risk n=181	p
Age (yrs)	62.1±11.8	67.7±11.4	73±9.1	<0.0001
Male sex (%)	70	66	60	0.03
3-vessel CAD (%)	15	28	39	<0.0001
ACC/AHA B2/C lesion (%)	79	81	86	0.01
Pre-PCI GP inhibitor use (%)	15	13	24	<0.0001
Overall GP inhibitor use (%)	89	85	79	0.0002
Angiographic/clinical success (%)	97.1/98.4	97.6/98.8	97.2/98.6	NS
Minor procedural events (%)	9	10	11	0.6
Peak CK-MB U/L	14.1±36	14.2±35	21.7±54	0.07
Peak troponin I (ng/ml)	3.0±7.9	2.8±7.3	6.1±11.5	<0.001
Length of stay (days)	2.3±3.1	3.1±11.9	3.4±3.7	<0.0001
30-day MACE (%)	6.1	5.2	8.5	0.04

MACE = death, MI (Q wave or CK-MB >3x normal), urgent revascularization
On multivariate analysis TIMI risk score remains an independent predictor for peri-procedural enzyme release, in-hospital stay, and 30-day MACE (2.6 OR, 95% CI 1.8-3.5; p<0.01).
Conclusion: Increasing TIMI risk score in UA/NSTEMI patients undergoing PCI correlates with multi vessel CAD, complex coronary lesions, peri-procedural enzyme release, and 30-day outcome. However, angiographic/clinical success and procedural events in the era of stent and GP inhibitor use are not different. Therefore, TIMI risk score can be a simple and useful tool to predict the in-hospital and 30-day outcome in UA/NSTEMI patients undergoing PCI.

3:00 p.m.

824FO-5 Facilitated Angioplasty With Combined ADP P2T Receptor Blockade and Fibrinolysis for the Treatment of Acute Myocardial Infarction: Results From the STEP-AMI Trial

Abedelrahim I. Asfour, Adam B. Greenbaum, Thomas M. McFarland, Michelle LeMay, Jack A. Painter, Jack A. Painter, Joshua Kieval, Amanda Stebbins, W Douglas Weaver, *Henry Ford Hospital, Detroit, Michigan.*

Recent studies suggest the feasibility of proceeding with percutaneous coronary intervention (PCI) in the setting of acute myocardial infarction (AMI) with glycoprotein IIb/IIIa receptor inhibition and lower dose fibrinolytic therapy. Our goal was to investigate the feasibility of PCI using a novel intravenous ADP P2T receptor antagonist and lower dose fibrinolytic therapy for the treatment of AMI. The Safety, Tolerability and Effect on Patency in Acute Myocardial Infarction (STEP-AMI) trial randomized patients with AMI to receive 1 of 3 doses of AR-C6993MX (35, 140 or 280μg/min) along with 50 mg t-PA given over 60 minutes, AR-C6993MX 280μg/min alone, or standard dose t-PA alone. All patients were to undergo 60-minute angiography with PCI if necessary or at the discretion of the treating physician. The trial was stopped after 101 of 180 planned patients were enrolled. Of 87 patients who underwent angiography, PCI was performed in 64 (73.6%). Overall success was achieved in 97% of patients with TIMI 3 flow achieved in 86%. Procedural complications were noted in 17 patients (26.5%) with no difference between those receiving combination therapy and standard-dose t-PA (30% vs. 33%, respectively). Through 30 days the incidence of major adverse cardiac events was lower in patients undergoing PCI at the time of angiography (see table). Facilitated angioplasty appears feasible with combined ADP P2T receptor blockade and lower dose fibrinolytic therapy for the treatment of AMI.

Adverse cardiac events through 30 days

	PCI at time of Angiography	No PCI at time of Angiography
N	64	19
Death	1 (1.6%)	2 (11.1%)
Reinfarction	2 (3.2%)	1 (5.9%)
Urgent Revascularization	2 (3.2%)	1 (5.9%)
Composite	5 (8%)	4 (21%)